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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND MS--ETC F/G 4/2
19702A GSRS, MISSILE NUMBERS 314, 213, ROUND NUMBERS A-55, A-56--ETC(U)

OCT 79

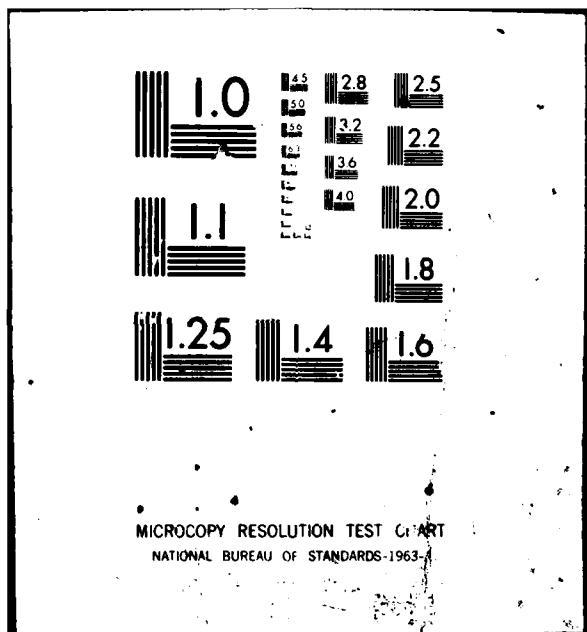
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20 OCTOBER 1979
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METEOROLOGICAL DATA REPORT

19702A GSRS
Missile Nos. 314, 213
Round Nos. B-55, B-56
30 October 1979

DTIC
SELECTED
APR 3-80

by

White Sands Meteorological Team

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1087	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19702A GSRS. Missile Numbers 314, 213, Round Numbers B-55, B-56 are presented in tabular form.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		

410663

CONTENTS

	PAGE
INTRODUCTION-----	1
DISCUSSION-----	1
LAUNCH AREA MAP-----	2
GENERAL AREA MAP-----	3
 TABLES	
1. Surface Observations taken at 1028 MST-----	4
2. Anemometer Measured Wind Speed and Direction, LC-33 Fixed Pole, taken at 1027 MST-----	5
3. Anemometer Measured Wind Speed and Direction, Tower Levels 1, 2, 3 and 4, taken at 1027 MST-----	5
4. LC-33 Pilot Balloon Measured Wind Data at 1010 MST-----	6
5. LC-33 Pilot Balloon Measured Wind Data at 1027 MST-----	7
6. Nick Site Pilot Balloon Measured Wind Data at 1035 MST-----	8
7. Nick Site Pilot Balloon Measured Wind Data at 1027 MST-----	9
8. SMR Significant Level Data at 0930 MST-----	10
9. SMR Upper Air Data at 0930 MST-----	11
10. SMR Mandatory Levels at 0930 MST-----	15

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By _____	
Distribution _____	
Availability _____	
Dist	Available or special
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INTRODUCTION

19702A GSRS, Missile Numbers 314 and 213, Round Numbers B-55 and B-56, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1027:03 and 1027:09, on 30 October 1979. The schedule launch times were 1015 and 1015:04 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), Wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

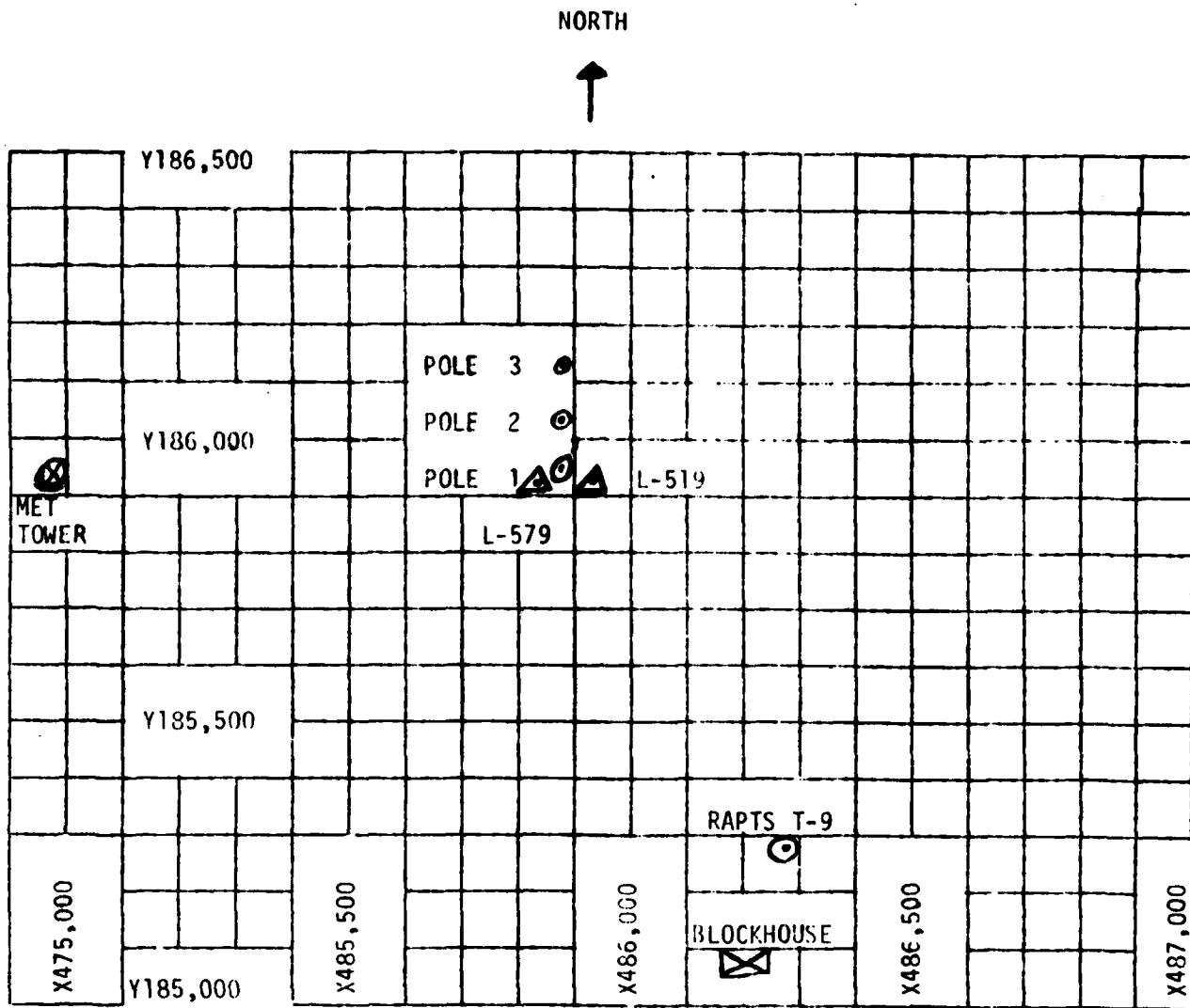
SITE AND ALTITUDE

LC-33 2Km
Nick 2Km

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 78,500 feet in 500-feet increments.

SITE AND TIME

SMR 0930 MST



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft.
 - (b) Pole #2 - 53.0 ft.
 - (c) Pole #3 - 83.6 ft.
3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

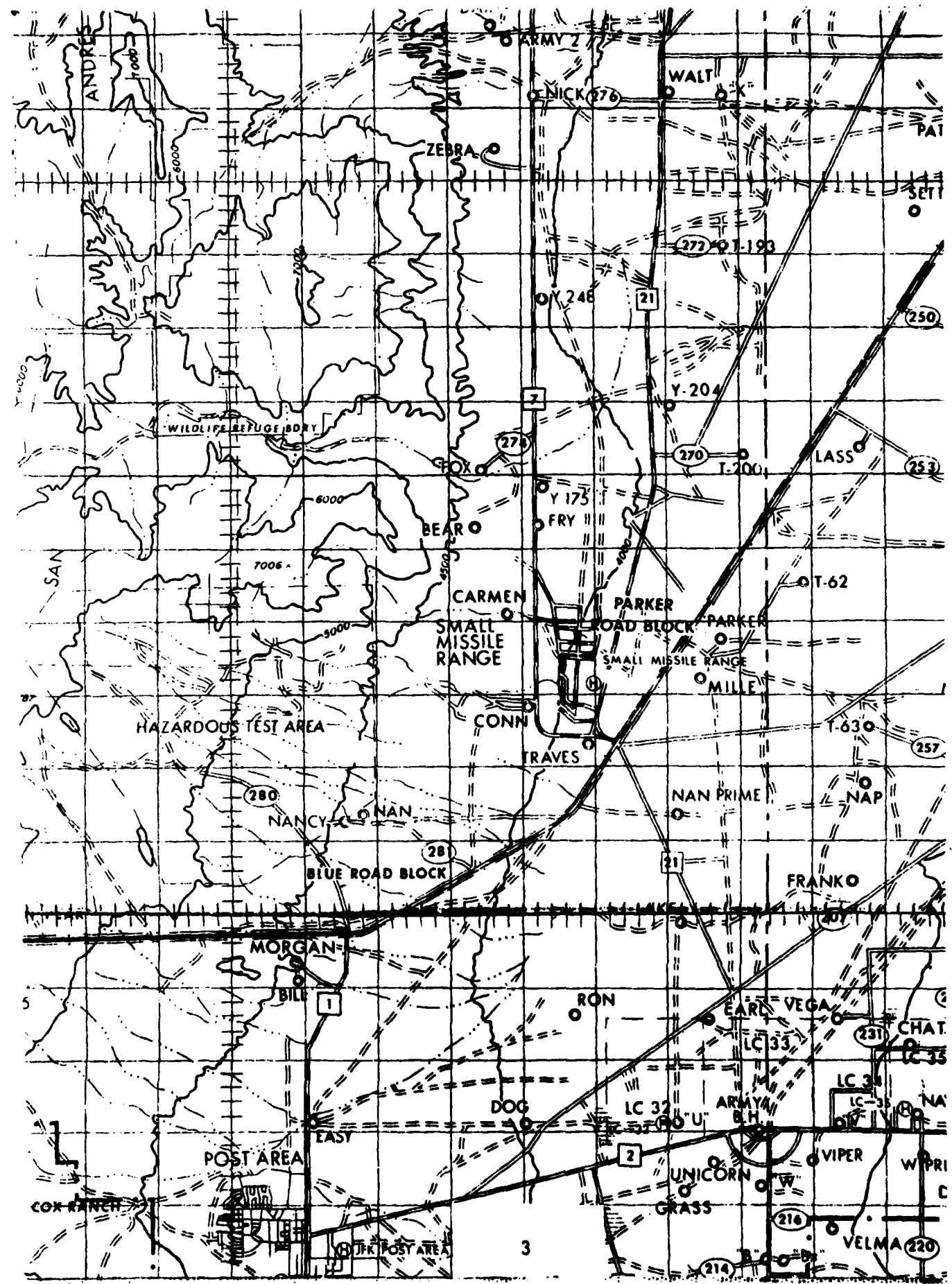


TABLE 1. Surface Observations taken at 1028 MST,
30 October 1979, at LC-33, 19702A GSRS,
Missile Numbers 314, 213, Round
Numbers B-55, B-56.

ELEVATION	3977.30	FT/MSL
PRESSURE	870.9	MBS
TEMPERATURE	11.2	°C
RELATIVE HUMIDITY	41	%
DEW POINT	-1.5	°C
DENSITY	1062	GM/M ³
WIND SPEED	07	KTS
WIND DIRECTION	300	DEGREES
CLOUD COVER	7	Sc
CLOUD COVER	1	Ac

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	285	11	-30	291	11	-30	284	08
-20	322	09	-20	315	09	-20	306	11
-10	294	14	-10	308	08	-10	MISG	12
0.0	308	09	0.0	291	09	0.0	MISG	14
+10	318	16	+10	313	11	+10	MISG	15

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	267	15	-30	300	15
-20	287	20	-20	299	16
-10	286	18	-10	305	11
0.0	297	17	0.0	313	13
+10	307	16	+10	315	14

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	300	17	-30	297	14
-20	298	16	-20	302	12
-10	336	15	-10	310	08
0.0	321	15	0.0	304	11
+10	320	15	+10	302	09

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33

DATE 30 October 1979

TIME 1010 MST

RELEASE POINT COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL XXX OR FEET AGL ____.

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 30 October 1979

TIME 1027 MST

RELEASE POINT COORDINATES (WSTM) X = 486,037.24 Y = 182,350.16 H = 3977.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL XXX OR FEET AGL .

PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM NIC

DATE 30 October 1979

TIME 1005 MST

RELEASE POINT COORDINATES (WSTM) X = 470,734,56 Y = 255,775,64 H = 4126,57

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL XXX OR FLET AGL ____.

PILOT BALLOON MEASURED WIND DATA

TABLE 7

RELEASED FROM NICK SITE DATE 30 October 1979 TIME 1027 MST
RELEASE POINT COORDINATES (WSTM) X= 470,734.56 Y= 255,775.64 H= 4126.57

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHTS ARE METERS AGL XXX OR FEET AGL .

STATION ALTITUDE 3497.30 FEET MSL
30 JULY 79 0930 HRS MST
NSC-15401 NO. 369

SIGNIFICANT LEVEL DATA

3030000369

S M R

TABLE 8

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON UEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
869.0	3997.3	11.2	38.0
850.0	4624.6	7.7	46.0
783.0	6634.2	2.1	59.0
700.0	9749.9	-6.1	95.0
644.6	11853.3	-11.0	99.0
633.6	12200.9	-10.7	99.0
627.2	12544.6	-12.1	99.0
585.2	14277.1	-15.5	74.0
577.0	14627.5	-15.4	52.0
569.0	14973.5	-16.3	36.0
560.6	15332.2	-17.0	25.0
536.8	16407.3	-18.9	21.0
500.0	18133.1	-22.8	24.0
403.2	23192.7	-35.4	26.0
400.0	23375.3	-35.3	25.0
389.6	23978.1	-36.2	21.0
348.5	26500.9	-40.5	
313.0	29926.5	-37.4	
309.0	29890.0	-37.4	
276.0	31614.1	-39.6	
259.0	33996.2	-41.4	
225.2	36330.9	-41.6	
207.9	38107.1	-44.1	
204.6	38461.5	-43.1	
200.0	39965.2	-44.1	
188.2	40304.3	-45.9	
175.2	41877.8	-44.9	
150.0	45254.3	-51.0	
122.4	49565.2	-56.3	
100.0	53773.9	-59.0	
94.4	54765.0	-60.3	
88.6	59271.3	-59.1	
83.0	57612.6	-62.2	
77.6	58738.1	-60.3	
70.0	61093.2	-64.1	
62.4	63411.5	-65.1	
59.2	64663.2	-60.3	
58.0	67973.1	-58.9	
30.0	78629.3	-56.5	

STATION ALTITUDE 3997.30 FEET MSL
 30 OCT. 79 0930 HRS MST
 ASCL-540N NO. 369

UPPER AIR DATA
 3030060309
 S M R
 TABLE 9

GEOGRAPHIC COORDINATES
 32.48034 LAT DEG
 106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	SPEED OF SOUND KNOTS	DENSITY GM/CUBIC METER	WIND DATA DIRECTION DEGREES (1N)	SPEED KNOTS	INDEX OF REFRACTION
3997.3	899.8	11.2	-2.6	38.0	1063.3	657.7	300.0	9.9	1.000261
4000.0	899.7	11.2	-2.6	38.0	1063.2	657.6	300.0	9.9	1.000261
4500.0	853.9	8.4	-3.0	44.4	1054.3	654.4	305.5	11.9	1.000258
5000.0	838.2	6.7	-3.4	43.4	1041.3	652.4	309.4	14.0	1.000255
5500.0	822.7	5.3	-3.9	51.7	1027.2	650.7	312.3	16.1	1.000251
6000.0	807.3	3.9	-4.4	54.9	1013.4	649.1	315.5	17.2	1.000248
6500.0	792.6	2.5	-4.9	59.1	999.7	647.9	323.3	14.7	1.000244
7000.0	777.6	1.1	-5.1	63.2	985.7	645.9	332.9	12.8	1.000241
7500.0	762.9	-0.2	-5.2	69.0	971.6	644.3	342.2	11.8	1.000238
8000.0	748.5	-1.5	-5.4	74.6	957.8	642.8	347.4	11.7	1.000234
8500.0	734.3	-2.8	-5.7	80.6	944.3	641.2	359.6	13.5	1.000231
9000.0	720.4	-4.1	-6.1	86.3	930.9	639.6	354.2	15.3	1.000228
9500.0	706.7	-5.4	-6.5	92.1	917.8	636.1	351.1	16.3	1.000224
10000.0	693.2	-6.7	-7.3	95.5	904.5	630.6	349.3	17.3	1.000220
10500.0	679.7	-7.8	-8.3	96.4	890.9	635.1	327.1	17.7	1.000216
11000.0	666.5	-9.0	-9.3	97.4	877.6	633.7	326.0	18.0	1.000212
11200.0	653.6	-10.2	-10.4	98.3	864.4	632.3	322.2	17.6	1.000208
11400.0	640.9	-10.9	-11.0	99.0	849.9	631.4	316.6	17.1	1.000204
11600.0	628.3	-11.9	-12.0	99.0	836.7	630.1	308.4	17.1	1.000200
11800.0	615.9	-13.0	-14.0	92.4	823.6	628.9	298.0	17.7	1.000195
12000.0	603.7	-14.0	-15.9	85.2	810.5	627.5	298.4	20.7	1.000191
12400.0	591.7	-15.0	-17.9	78.0	797.6	626.3	300.1	23.6	1.000186
12800.0	580.9	-15.4	-21.4	60.0	783.4	625.0	307.5	25.1	1.000181
13200.0	569.4	-16.4	-23.1	35.2	770.8	624.4	314.9	24.6	1.000175
13500.0	557.0	-17.3	-32.8	24.4	758.2	623.2	320.9	24.3	1.000171
14000.0	545.8	-18.2	-34.4	22.5	745.5	622.1	322.6	25.2	1.000168
14500.0	534.8	-19.1	-35.6	21.2	733.2	621.0	323.1	26.1	1.000165
15000.0	523.9	-20.2	-36.3	22.0	721.4	619.6	322.3	27.0	1.000162
15500.0	513.2	-21.4	-36.9	22.9	709.9	618.2	320.0	27.7	1.000160
16000.0	502.7	-22.5	-37.5	23.6	698.6	616.8	317.4	28.2	1.000157
16500.0	492.3	-23.7	-39.4	24.1	687.4	615.3	314.4	29.4	1.000154
17000.0	481.9	-25.0	-39.4	24.3	676.3	613.8	311.7	32.6	1.000152
17500.0	471.8	-26.2	-40.4	24.5	665.4	612.2	309.6	35.7	1.000149
18000.0	461.8	-27.4	-41.5	24.7	654.7	610.7	309.4	38.3	1.000147
18500.0	452.1	-28.7	-42.5	24.9	644.2	609.1	308.9	40.9	1.000144
19000.0	442.6	-29.9	-43.5	25.1	633.9	607.6	308.7	41.3	1.000142
19500.0	433.3	-31.2	-44.5	25.3	623.8	606.5	308.0	41.0	1.000140
20000.0	424.2	-32.4	-45.5	25.5	613.8	604.5	308.5	39.9	1.000137
20500.0	415.3	-33.7	-46.5	25.7	604.0	602.9	308.6	38.0	1.000135
21000.0	406.5	-34.9	-47.6	25.9	594.4	601.3	308.4	36.5	1.000133

STATION ALTITUDE 3497.30 Ft EEL MSL
30 OCT. 79 0930 HRS MST
ASCENDS 1.0. 309

UPPER AIR DATA
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S MR

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON LEG

TABLE 9 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	397.8	-35.5	-48.7	24.2	585.1	90.6	308.0	35.5	1.000130
24000.0	359.2	-36.2	-50.6	20.8**	572.3	95.9.7	307.0	35.2	1.000128
24500.0	340.7	-37.1	-53.2	16.7**	561.6	99.6.6	307.4	36.5	1.000125
25000.0	372.4	-37.9	-56.3	12.5**	551.5	97.5	307.7	38.4	1.000123
25500.0	364.3	-38.8	-50.1	8.3**	541.5	96.6.4	309.0	41.7	1.000121
26000.0	356.9	-39.6	-65.9	4.2**	531.8	95.5.3	310.6	45.2	1.000118
26500.0	348.5	-40.5	-102.0	0.0**	521.9	95.4.2	313.5	48.9	1.000116
27000.0	340.9	-39.9	-		509.0	95.5.0	316.0	52.7	1.000113
27500.0	333.4	-39.2	-		496.5	95.5.8	316.7	53.1	1.000111
28000.0	326.1	-38.6	-		484.3	96.7	317.2	53.1	1.000108
28500.0	319.0	-37.9	-		472.4	97.5	314.3	47.6	1.000105
29000.0	312.0	-37.4	-		461.0	99.8.2	310.6	43.5	1.000103
29500.0	305.2	-37.4	-		451.0	99.6.2	307.7	43.5	1.000100
30000.0	298.6	-37.5	-		441.4	99.6.9	305.0	44.1	1.000098
30500.0	292.0	-38.2	-		433.0	97.2	305.7	47.5	1.000096
31000.0	285.6	-36.8	-		424.6	99.6.4	306.2	50.8	1.000095
31500.0	279.4	-39.5	-		416.5	95.6	305.6	50.7	1.000093
32000.0	273.3	-39.9	-		406.1	95.5.0	305.1	50.5	1.000091
32500.0	267.2	-40.3	-		399.8	94.5	302.8	50.3	1.000089
33000.0	261.5	-40.6	-		391.6	94.0	300.3	50.2	1.000087
33500.0	255.6	-41.0	-		363.0	95.5	298.4	50.0	1.000085
34000.0	259.0	-41.4	-		375.7	95.1	298.7	49.7	1.000084
34500.0	244.4	-41.4	-		367.5	95.0	295.1	49.0	1.000082
35000.0	239.9	-41.5	-		359.4	94.5.0	293.4	48.1	1.000080
35500.0	235.7	-41.5	-		351.5	94.0	288.2	48.9	1.000078
36000.0	228.6	-41.6	-		343.8	92.8	281.7	50.9	1.000077
36500.0	223.5	-41.8	-		336.6	92.5	278.3	56.2	1.000075
37000.0	218.5	-42.5	-		330.1	91.6	276.3	62.5	1.000074
37500.0	213.7	-43.2	-		323.7	90.7	277.1	66.8	1.000072
38000.0	208.9	-43.9	-		317.5	89.8	278.5	70.5	1.000071
38500.0	204.2	-43.2	-		309.4	89.6	281.3	68.9	1.000069
39000.0	199.7	-44.1	-		303.8	89.5	284.9	65.9	1.000068
39500.0	195.2	-44.8	-		297.8	88.7	285.5	61.1	1.000066
40000.0	190.8	-45.5	-		292.0	87.8	289.1	55.7	1.000065
40500.0	186.5	-45.8	-		285.8	87.4	279.9	51.0	1.000064
41000.0	182.3	-45.5	-		279.0	87.9	272.7	47.1	1.000062
41500.0	178.2	-45.1	-		272.3	88.3	269.3	43.5	1.000061
42000.0	174.2	-45.1	-		266.2	88.5	266.1	39.9	1.000059
42500.0	170.3	-46.0	-		261.1	87.1	265.0	38.3	1.000058
43000.0	166.4	-46.9	-		256.2	88.0	265.5	37.0	1.000057

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE. USE LINEAR INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
 30 OCT. 79 0930 HRS NST
 ASCENS. 140. 369

UPPER AIR DATA
 3030060369
 S M R

TABLE 9 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT PERCENT	REL. HUM. PERCENT	SPEC. OF G/CUBIC METER	SOUND KNOTS	DIRECTION DEGREES (TIN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	162.6	-47.8			251.4	384.8	207.3	37.3	1.000056
44000.0	158.9	-48.7			246.7	363.0	268.8	38.1	1.000055
44500.0	155.3	-49.6			242.0	352.4	269.0	40.8	1.000054
45000.0	151.8	-50.5			237.5	351.3	270.0	43.0	1.000053
45500.0	148.3	-51.3			232.8	360.3	272.4	44.6	1.000052
46000.0	144.8	-51.9			228.0	379.5	276.2	44.2	1.000051
46500.0	141.4	-52.5			223.3	378.7	281.2	42.7	1.000050
47000.0	138.1	-53.1			218.7	377.8	281.7	39.4	1.000049
47500.0	134.9	-53.8			214.2	377.0	281.7	35.8	1.000048
48000.0	131.8	-54.4			209.8	376.2	274.1	32.0	1.000047
48500.0	128.7	-55.0			205.5	375.4	202.7	29.2	1.000046
49000.0	125.7	-55.6			201.3	374.0	255.3	29.6	1.000045
49500.0	122.8	-56.2			197.2	373.8	291.5	31.6	1.000044
50000.0	119.9	-56.6			192.6	373.5	250.6	33.6	1.000043
50500.0	117.0	-56.9			188.5	372.9	252.9	35.4	1.000042
51000.0	114.2	-57.2			184.3	372.5	234.6	36.6	1.000041
51500.0	111.5	-57.5			180.2	372.0	255.1	35.5	1.000040
52000.0	108.9	-57.9			176.2	371.0	255.0	34.5	1.000039
52500.0	106.5	-58.2			172.3	371.2	255.4	36.0	1.000038
53000.0	103.8	-58.5			168.4	370.8	255.3	37.6	1.000038
53500.0	101.9	-58.8			164.7	370.3	254.2	37.3	1.000037
54000.0	98.9	-59.2			161.1	369.8	252.8	36.7	1.000036
54500.0	96.5	-59.6			157.6	369.0	251.0	33.7	1.000035
55000.0	94.2	-60.3			154.2	368.4	250.3	28.4	1.000034
55500.0	92.0	-59.8			150.2	369.0	249.3	24.0	1.000033
56000.0	89.8	-59.3			146.3	369.6	252.5	22.8	1.000033
56500.0	87.6	-59.6			143.0	369.3	255.6	21.7	1.000032
57000.0	85.5	-60.3			140.3	367.7	259.3	19.7	1.000031
57500.0	83.5	-61.0			137.9	369.2	263.7	17.4	1.000031
58000.0	81.4	-61.6			134.1	366.6	269.0	14.9	1.000030
58500.0	79.3	-60.9			130.5	367.5	276.4	10.4	1.000029
59000.0	77.6	-60.4			127.0	368.2	293.9	6.3	1.000028
59500.0	75.7	-61.3			124.5	367.0	326.6	4.9	1.000028
60000.0	73.9	-62.2			121.9	365.9	352.9	5.8	1.000027
60500.0	72.1	-63.1			119.5	364.7	9.0	7.5	1.000027
61000.0	70.3	-63.9			117.1	363.5	264.4	6.9	1.000026
61500.0	68.6	-64.3			114.4	363.0	48.6	6.4	1.000025
62000.0	66.9	-64.5			111.7	362.7	74.4	6.8	1.000025
62500.0	65.5	-64.7			109.1	362.5	104.0	6.5	1.000024
63000.0	63.7	-64.9			106.5	362.2	131.0	6.1	1.000024

STATION ALTITUDE 3497.30 FEET MSL
30 OCT. 79 0930 HRS MST
ASCENSIO. NO. 359

UPPER AIR DATA
3030060309
S M R

TABLE 9 (CONT)

GEOGRAPHIC COORDINATES
32°48'03.4" LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE IN FEET	PRESSURE IN MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND METER KNOTS	WIND DATA DIRECTION DEGREES (10)	INDEX OF REFRACTION
03500.0	62.1	-64.7		103.8	562.5	9.7
04000.0	60.6	-62.5		100.2	565.5	10.5
04500.0	59.2	-60.3		96.8	568.4	102.2
05000.0	57.7	-60.1		94.4	568.6	173.7
05500.0	56.4	-59.9		92.1	568.9	169.2
06000.0	55.0	-59.7		89.8	569.2	204.0
06500.0	53.7	-59.5		87.5	569.5	219.4
07000.0	52.4	-59.3		85.4	569.7	239.5
07500.0	51.2	-59.1		83.3	570.0	255.9
08000.0	49.9	-58.9		81.2	570.2	265.4
08500.0	48.8	-58.8		79.2	570.4	276.7
09000.0	47.6	-58.7		77.3	570.5	290.6
09500.0	46.5	-58.6		75.4	570.7	297.1
10000.0	45.4	-58.4		73.6	570.8	25.1
10500.0	44.3	-58.3		71.8	571.0	107.0
11000.0	43.2	-58.2		70.4	571.1	137.4
11500.0	42.0	-58.1		68.4	571.3	149.4
12000.0	41.2	-58.0		66.7	571.4	168.0
12500.0	40.2	-57.9		65.1	571.6	189.2
13000.0	39.3	-57.8		63.6	571.7	204.0
13500.0	38.4	-57.7		62.0	571.9	214.8
14000.0	37.5	-57.5		60.5	572.0	226.4
14500.0	36.6	-57.4		59.1	572.2	238.2
15000.0	35.7	-57.3		57.6	572.3	248.5
15500.0	34.9	-57.2		56.2	572.5	260.9
16000.0	34.0	-57.1		54.9	572.6	274.8
16500.0	33.2	-57.0		53.5	572.8	277.9
17000.0	32.4	-56.9		52.2	572.9	280.4
17500.0	31.7	-56.8		51.0	573.1	282.8
18000.0	30.9	-56.6		49.7	573.2	14.0
18500.0	30.2	-56.5		48.5	573.4	1.000011

GEOGRAPHIC COORDINATES
32°48'03.4" LAT DEG
106.42307 LON DEG

INDEX
OF
REFRACTION

WIND DATA
DIRECTION
DEGREES (10)

WIND SPEED
KNOTS

REL. HUM.
PERCENT

TEMPERATURE
AIR DEGREE
CENTIGRADE

REL. HUM.
PERCENT

TEMP

STATION ALTITUDE 3997.30 FEET MSL
 30 OCT. 79 0930 HRS MSL
 ASCENSION NO. 369

MANDATORY LEVELS
 3030060369
 S M R
 TABLE 9 (CONT)

GEODETIC COORDINATES
 32.448034 LAT DEG
 106.42307 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPNT CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
650.0	4621.	7.7	-3.2	40.	306.6	12.4
600.0	6246.	3.2	-4.6	57.	319.1	15.9
750.0	7951.	-1.4	-5.3	74.	348.2	11.6
700.0	9741.	-6.1	-6.3	95.	329.7	16.8
650.0	11630.	-10.5	-10.7	99.	320.7	17.5
600.0	134040.	-14.3	-16.5	63.	298.4	21.6
550.0	15701.	-17.8	-33.6	25.	322.1	24.8
500.0	18109.	-22.8	-37.7	24.	316.7	26.3
450.0	20012.	-29.0	-42.7	25.	308.8	41.5
400.0	23338.	-35.3	-48.2	25.	306.1	35.7
350.0	26558.	-40.3	-77.4	1.**	312.9	48.1
300.0	29633.	-37.4			305.3	43.6
250.0	33924.	-41.4			296.8	49.7
200.0	36874.	-44.1			264.5	60.2
175.0	41796.	-44.9			266.9	40.7
150.0	45134.	-51.0			271.1	43.6
125.0	46985.	-55.8			254.5	30.0
100.0	53609.	-59.0			255.5	37.0
80.0	58174.	-61.1			273.4	11.8
70.0	60885.	-64.1			29.0	6.8
60.0	63979.	-61.5			166.5	11.0
50.0	67719.	-58.9			275.1	13.4
40.0	72325.	-57.9			205.7	17.1
30.0	76295.	-56.5				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.